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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/718,839	11/20/2003	Theodore J. Tarabulski	CCA-119	1894

20028 7590 07/12/2004

LAW OFFICE OF BARRY R LIPSITZ  
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MONROE, CT 06468

EXAMINER

TRAN, DIEM T

ART UNIT PAPER NUMBER

3748

DATE MAILED: 07/12/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/718,839

Applicant(s)

TARABULSKI ET AL.

Examiner

Diem Tran

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-34 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-34 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____.  |

**DETAILED ACTION*****Drawings***

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "28" has been used to designate both "engine control unit" and "silencer/mixer" in Figure 1. Corrected drawing sheets are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

***Claims 1-34 are rejected under 35 U.S.C. 102(e) as being anticipated by Itoh et al. (US Patent 6,725,651).***

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Regarding claims 1, 2, 4, 5, 10, 15, 18, 19, 21, 22, 27, 32, Itoh discloses a method for reducing NOx emissions in diesel engine exhaust, comprising:

determining at least one engine operating parameter for each of a plurality engine operating conditions; temporarily detecting respective NOx emissions at each of said engine operating conditions (see col. 9, lines 9-18);

developing an injection strategy based on said at least one engine operating parameter at said respective operating condition and said respective detected NOx emissions (see col. 9, lines 14-26);

controlling the injection of a reagent into the exhaust at variable flow rate in order reduce NOx emissions at said various operating conditions in accordance with said injection strategy; wherein said variable flow rate of said reagent is controlled by a reagent injection controller in accordance with said injection strategy based on input one or more of said engine operating parameters (see col. 9, lines 14+).

Regarding claims 3, 20, Itoh further discloses that said reagent comprises aqueous urea reagent (see col. 9, lines 19-22).

Regarding claims 6-8, 23-25, Itoh further discloses that said injection strategy is downloaded to the reagent injection controller (see col. 9, lines 19-26).

Regarding claims 9, 11, 12, 26, 28, 29, Itoh further discloses specifying particular drive cycles of said vehicle to generate said plurality of engine operating conditions.

Regarding claims 13, 30, Itoh further discloses providing at least one SCR catalyst bed in an exhaust system having selective catalytic reduction properties enable conversion of said Nox emissions into water, nitrogen and carbon dioxide after interaction with said reagent (see col. 7, lines 1-5).

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Regarding claims 14, 31, Itoh further discloses that said SCR catalyst bed comprises zeolite (see col. 7, lines 1-5).

Regarding claims 16, 17, 33, 34, Itoh further discloses that said NO<sub>x</sub> is detected by a NO<sub>x</sub> meter (21) located external exhaust system.

### ***Conclusion***

Any inquiry concerning this communication from the examiner should be directed to Examiner Diem Tran whose telephone number is (703) 308-6073. The examiner can normally be reached on Monday -Friday from 8:30 a.m.- 5:00p.m.

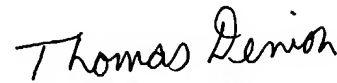
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas E. Denion, can be reached on (703) 308-2623. The fax number for this group is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0861.



Diem Tran  
Patent Examiner  
Art unit 3748

DT  
July 8, 2004



THOMAS DENION  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 3700